PEACE/WILLISTON
FISH & WILDLIFE
COMPENSATION
PROGRAM

BC hydro

BRITISH
COLUMBIA

A Reconnaissance Survey of Unnamed Lake (White Lake)

K. Mathias
March 1997

PWFWCP Report No. 159

The Peace/Williston Fish & Wildlife Compensation Program is a cooperative venture of BC Hydro and the provincial fish and wildlife management agencies, supported by funding from BC Hydro. The Program was established to enhance and protect fish and wildlife resources affected by the construction of the W.A.C. Bennett and Peace Canyon dams on the Peace River, and the subsequent creation of the Williston and Dinosaur Reservoirs.

Peace/Williston Fish and Wildlife Compensation Program, 1011 Fourth Ave.
3rd Floor, Prince George B.C. V2L 3H9

Website: *www.bchydro.bc.ca/environment/initiatives/pwcp/*

This report has been approved by the Peace/Williston Fish and Wildlife Compensation Program Fish Technical Committee.

Citation: K. Mathias. March 1997. A reconnaissance survey of Unnamed Lake (White Lake). Peace/Williston Fish and Wildlife Compensation Program, Report No. 159. 23pp plus appendices.

Author(s): Karin Mathias[1]
Address(es): [1] Peace/Williston Fish and Wildlife Compensation Program, 1011 Fourth Ave., 3rd Floor
Prince George, B.C. V2L 3H9

105-02088/

UNNAMED LAKE (PELLY LAKE # 1) IS NOW

UNOFFICIALLY RECORDED AS WHITE LAKE

A RECONNAISSANCE SURVEY OF

UNNAMED LAKE (PELLY LAKE # 1)

WATERSHED:	**Williston Reservoir (Finlay Reach)**
DATE OF SURVEY:	**August 26 - 27, 1996**
FIELD CREW LEADER:	**Karin Mathias**
FIELD ASSISTANT:	**Wayne Cook**
REPORT PREPARED BY:	**Karin Mathias**
REPORT EDITED BY:	**Mark Hunter**

BRITISH COLUMBIA CONSERVATION FOUNDATION

PEACE / WILLISTON FISH AND WILDLIFE COMPENSATION PROGRAM

B. C. MINISTRY OF ENVIRONMENT, LANDS AND PARKS

FUNDED BY: FOREST RENEWAL BRITISH COLUMBIA

RELEASED BY: _____

D. J. Cadden, Regional Fisheries Biologist

LAKE: Unnamed Lake (Pelly Lake # 1) SYSTEM NAME: Finlay River

A.S.A.P. REFERENCE NO.: **WATERSHED CODE: 230-9988-241**

DATA ON FILE FOR THIS SURVEY

Location	X	Dissolved O_2 / Temp. Profiles	X
Physical Data	X	Winter Dissolved O_2 / Temp. Profiles	--
Bench Mark	X	Netting Record	X
Terrain Features	X	Lake Catch Summary	X
Access	X	Individual Fish Data	--
Resorts and Campsites	X	Fish Preserved	--
Other Developments	X	Stomach Analysis	--
Obstructions and Pollutions	X	Scale Reading	--
Special Restrictions	X	Location of Inventory Sites	X
Aquatic Plants	X	Photograph Directory	X
Wildlife Observations	X	Appendices	
Miscellaneous Comments	X	A: Water Chemistry Analysis	X
Lake Drainage	X	B: Tributary Stream Data	--
Fisheries Management Comments	X	C: Fish Scale Analysis	--
History of Previous Surveys	X	Bathymetric Map Reduction	X
Water Chemistry Summary	X	Bathymetric Map	--

LOCATION

Location:	approximately 69 km south southeast of Fort Ware		
Elevation:	990 m ± 10 m	U.T.M.:	10.368771.6305228
Latitude / Longitude:	56°52'20" 125°09'11"	N.T.S. Map No.:	94 C/14 edition 2
Management Unit:	7-40	Biogeoclimatic Zone:	Boreal Black and White Spruce
Ecoprovince:	Northern Boreal Mountains	Ecoregion:	Northern Canadian Rocky Mountains
Ecosection:	Cassiar Ranges		

Drainage: Unnamed C. --> Unnamed L. --> Unnamed C. --> Ed Bird L. --> Unnamed C. --> Unnamed L. --> Unnamed C. --> Unnamed P. --> Unnamed C. --> Unnamed L. --> Unnamed C. --> Williston Reservoir (Finlay Reach) --> Peace R.

PHYSICAL DATA

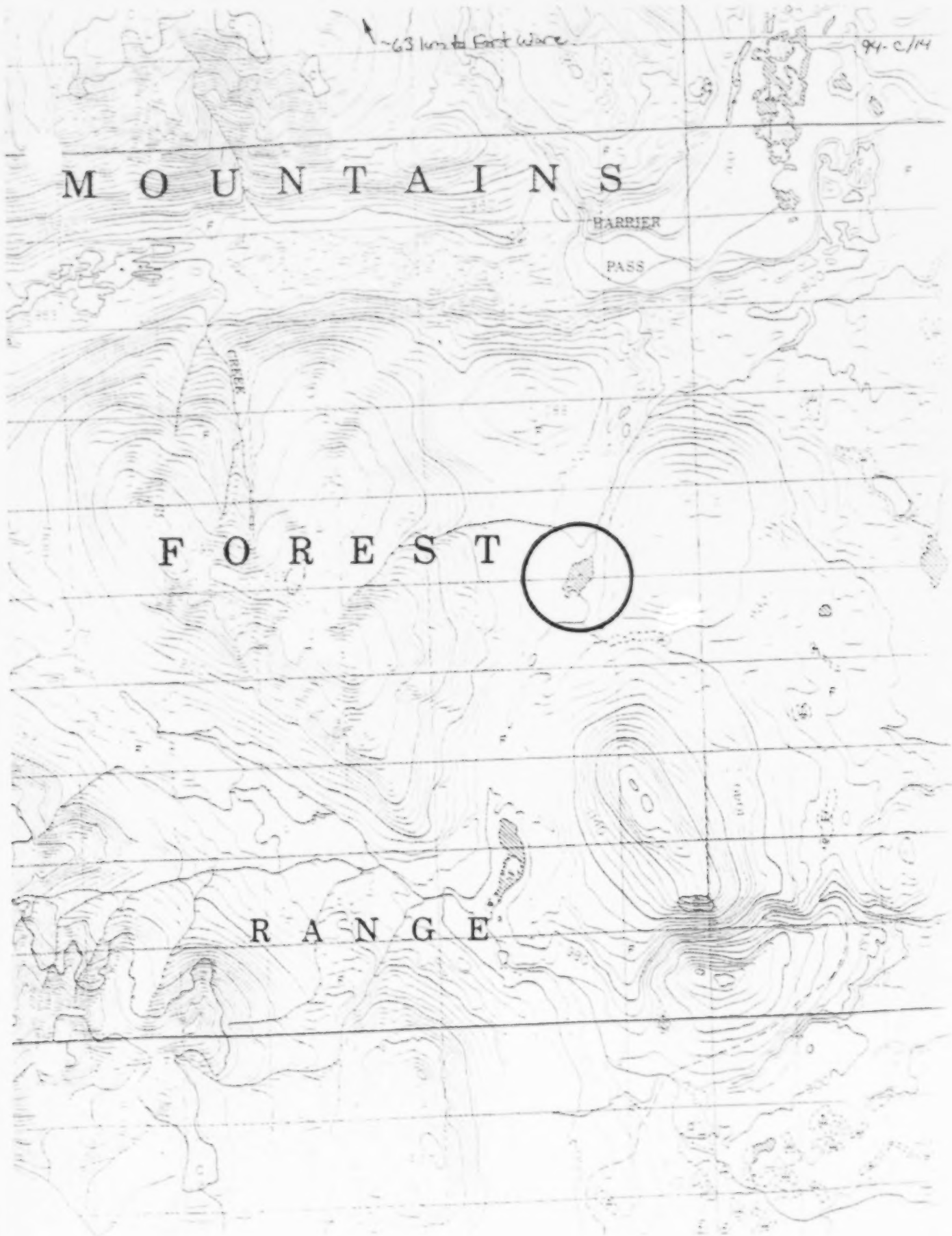
Lake Drainage Area:	5.0 km^2	Volume:	96 467 m^3
Water Surface Area:	79 694 m^2	Perimeter of Islands:	0 m
Area Above 6 m Contour:	79 694 m^2	Number of Islands:	0
Shoreline Perimeter:	1 713 m	Mean Depth:	1.2 m
Maximum Depth:	4.4 m	Secchi Reading:	4.2 m
Filterable Residue (TDS):	170 mg/L		

Sounding Device: Lowrance X-15 Elevation Source: Contour Interpolation

BENCHMARK

(Iron spike, center of red circle) located 2.0 m above present water level in a 18 cm diameter spruce tree that is 1.5 m from the present water's edge, and located on the southeast side of the lake approximately 100 m north of Inlet # 1 (Plate # 5).

High Water Mark: 0.35 m above water level at time of survey


~63 km to Fort Wrce
94-C/14
MOUNTAINS
BARRIER
PASS
CREEK
FOREST
RANGE

LAKE: Unnamed Lake (Pelly Lake # 1)

TERRAIN FEATURES

Immediate Shoreline:

The water level on Pelly Lake # 1 at the time of the survey appeared to be 30-50 cm higher than previous levels, since approximately 80% of the shoreline consisted of standing dead trees extending 6-7 m out into the lake. The old shoreline was clearly visible along the east side of the lake, where a strip of exposed large cobble above a 10-20 cm drop off, was situated 5.8 m out from the water line at the time of survey. In spite of this, a high water mark of 35 cm was clearly visible on the dead trees at the shoreline. Thus, it appears that the water level of Pelly Lake # 1 fluctuates widely over time. The 20% of the shoreline that was not inundated with high water consisted of sedge grasses fronting moss banks with a spruce / lodgepole pine forest behind.

The shoreline slope is low to moderate on the north (adjacent to the outlet) and south sides of the lake, low on the east shore, and moderate to moderately steep on the west side of Pelly Lake # 1. The west shore slope is quite steep initially but levels off quickly into mainly lodgepole pine flats.

The shoreline substrate consists of silts and organics with gravels and cobbles usually found underneath. The lake bottom substrate, clearly visible over the whole lake through the clear, blue-green water, appears to consist of thick silty clay material. Due to the flooded shoreline, a large amount of large woody debris was found along most of the perimeter of the lake. In the centre of Pelly Lake # 1, there is a small shoal of boulders with large woody debris (dead shoreline trees) snared atop that is overgrown with Chara sp., whitestem pondweed (Potamogeton praelongus) and eel grass. In the southwest bay there are two significant patches of vegetation, one consisting only of Chara sp., the other comprised of Chara sp. and whitestem pondweed, with a 2 m diameter sedge grass island growing in the centre of the patch. The lake's bottom drops off slowly to moderately along the south, west and north shores. A moderate to steep drop off is found along the east shore. A beaver hut is located on the west side of the lake (Plate # 6).

Surrounding Country:

Pelly Lake # 1 is surrounded by a mature forest of lodgepole pine and spruce trees. From the north-northeast shore to the east shore of Pelly Lake # 1 the surrounding forest consists of spruce and lodgepole pine trees, with spruce being the dominant species. The remaining shoreline is also forested with spruce and lodgepole pine, but with lodgepole pine being the dominant species (approximately 80% lodgepole pine and 20% spruce). Most of the terrain surrounding Pelly Lake # 1 consists of low rolling hills, except to the north and the south-southwest where the land drops in elevation and no hills can be seen. Several high mountain peaks are visible in the distance to the southwest of Pelly Lake #1. Pelly Lake # 1 is situated within the Boreal Black and White Spruce biogeoclimatic zone.

LAKE: Unnamed Lake (Pelly Lake # 1)

ACCESS

Directions:

From it's junction with Highway 39, proceed south on Highway 97 for approximately 1.5 km, and turn right on to the Finlay Forest Service Road. Proceed north for approximately 200 km to Mesilinka Camp, then continue on the Finlay-Chunamon Forest Service Road for another 144 km to Swannell Camp, approximately 17 km west of the Ingenika Arm barge landing. The total distance from the junction of Hwy. 97 and Hwy. 39 to Swannell Camp is approximately 335 km. From Swannell Camp, Pelly Lake # 1 is approximately a 16 km helicopter ride to the north.

Alternatively, the Ingenika Arm can be crossed by barge. If this is done, then on the north side of the Ingenika Arm, continue on the Finlay Forest Service Road for approximately 10 km, and turn left onto the Finlay-Pelly Lake Forest Service Road (Pelly Mainline). After approximately 8.5 km, the road enters a cut block. From this cut block, Pelly Lake # 1 is approximately a 3 km helicopter ride to the southwest.

Barge transportation can be arranged with Finlay Navigation Inc. who can be reached in Prince George at (250) 964-3525 and in Mackenzie at (250) 997-3525. Actual barge pick-up times may vary greatly from the predicted pick-up time.

The Pelly mainline and cut block conditions were not investigated during the lake inventory and the distances given may not be accurate. Up to date Forest Plan Maps should be consulted before accessing Pelly Lake # 1 from the north side of the Ingenika Arm.

Road Type and Conditions:

Highway 97 is a well-maintained, two-lane provincial highway. The Finlay Forest Service Road, and the Finlay-Chunamon Forest Service Road from 0 km to 79 km, is a well-maintained, two-lane gravel road that can be easily traveled with a two-wheel drive vehicle during the summer. After approximately 79 km, near Factor Ross Creek, the road becomes quite narrow and very windy. The Finlay Forest Service Road north of the Ingenika Arm is a well-maintained, two-lane gravel road that can be easily traveled with a two-wheel drive vehicle during the summer. The Finlay-Pelly Lake F. S. R. (Pelly Mainline) conditions are unknown as Pelly Lake # 1 was accessed by helicopter from Swannell Camp.

Restrictions:

Although there are no restrictions, it is recommended that a truck radio be used when traveling the gravel roads.

LAKE: Unnamed Lake (Pelly Lake # 1)

RESORTS AND CAMPSITES

There were no resorts or campsites on Pelly Lake # 1.

OTHER DEVELOPMENTS

None noted.

OBSTRUCTIONS AND POLLUTIONS

None noted.

SPECIAL RESTRICTIONS

None known.

AQUATIC PLANTS

The following aquatic plants were identified in Pelly Lake # 1 during the time of survey:

Chara sp.
Equisetum sp.
whitestem pondweed (Potamogeton praelongus)
aquatic clubmoss
eel grass
smartweed (Polygonum sp.)

algae colonies (green translucent, jelly-like masses 2-5 cm in diameter)

WILDLIFE OBSERVATIONS

The following wildlife or wildlife signs were seen during the time of the survey:

moose tracks
bufflehead duck (1 juvenile)
beaver sign (did not appear to be recent)
Barrow's golden-eye duck (6 juveniles)
porcupine damage to a few trees

LAKE: Unnamed Lake (Pelly Lake # 1)

MISCELLANEOUS COMMENTS

1) Bathymetric map: The lake outline was drawn from an enlargement of air photo 30 BCB 93058: No. 136, flown on August 15, 1993.

2) The inlet creek of Pelly Lake # 1 shown on the NTS map is no longer flowing as shown. Presently this inlet creek appears to flow underground, saturating the surrounding marsh area, eventually trickling into the lake at the same location as the inlet shown on the NTS map.

3) Many of the distances given in the directions to Pelly Lake # 1 (in the Access section) have been taken from the Mackenzie South Forest District Recreation map and thus distances are approximations only.

4) The following aquatic organisms were observed in abundance in Pelly Lake # 1:

- dragonfly adults and nymphs
- caddisfly adults and larva
- water striders
- water boatmen
- Gammerus
- copepods

5) A calcareous-like substance, beige / pink in color, was observed coating submerged logs, organic debris and the aquatic plant Chara sp., making them quite brittle.

6) The lodgepole pine flats located on the west side of the Pelly Lake # 1 would be a good location for a Forest Recreation Site.

LAKE: Unnamed Lake (Pelly Lake # 1)

LAKE DRAINAGE

General:

Pelly Lake # 1 is fed by a total of six minor inlets and four seasonal inlets. The only inlet creek of Pelly Lake # 1 depicted on the NTS map is no longer flowing as shown. Presently this inlet creek appears to flow underground, saturating the surrounding moss bog area, eventually trickling into the lake as the six continuous and four seasonal inlets at the same location as the inlet shown on the NTS map. The lake is drained to the northeast by an unnamed creek that flows 7.7 km to an unnamed lake. The unnamed outlet of this lake flows 1.3 km to Ed Bird Lake. The unnamed outlet of Ed Bird Lake flows for 0.2 km before entering another unnamed lake. The unnamed creek draining this lake flows for 0.4 km into an unnamed pond. The unnamed outlet of this pond flows for 2.6 km to another unnamed lake. Finally, the unnamed outlet of this lake flows 2.0 km to the Finlay Reach of the Williston Reservoir. All distances are approximations.

Major Systems:

There are no major systems.

Minor Systems:

Inlets # 1 to # 6 - Unnamed Creeks

Inlets # 1 to # 6 enter Pelly Lake # 1 in the south bay, all within meters of each other (Plate # 7). Most of the inlets' flow seemed to be underground, originating and draining from a water saturated moss bog area. As the six continuous inlets most likely originate from the same underground water source, and have very similar physical characteristics, they will be described together. All six inlets flow out of moss covered soil banks from 0.5 m to 4.5 m upstream of Pelly Lake # 1. Upstream of where the inlets trickle out of the banks, extensive, unconnected pools in the moss bog are found. The riparian vegetation is quite sparse and consists of grasses, scrub birch and other small, unidentified shrubs. The moss covering the surrounding area is mainly common red sphagnum (Sphagnum capillaceum). The average wetted widths of the six inlets range from 0.2 m to 0.3 m, and the average depth of the inlets range from 0.1 m to 0.15 m. The substrate of the six inlets consists of large gravel to large cobble, typically covered in a thin layer of silts and organics. Inlet # 6, a typical inlet of Pelly Lake # 1 is shown in Plate # 8. None of the six continuous inlets of Pelly Lake # 1 had any fisheries potential during the survey period.

LAKE: Unnamed Lake (Pelly Lake # 1)

Intermittent Inlets # I to # 4 - Unnamed Creeks

The four intermittent inlets enter the south bay of Pelly Lake # 1 in the same area as the six continuous inlets. When flowing, the four seasonal inlets likely flow from the same saturated moss bog area as the six continuous inlets. The structure of the seasonal inlets consist of unconnected pools situated upstream of the dry channels which start flowing above ground (out of a moss bank) 0.5 m upstream of Pelly Lake # 1. The channel beds of these seasonal inlets is mainly composed of silts and organics, with very little gravels or cobbles. The sparse riparian vegetation consists of grasses, scrub birch and other small, unidentified shrubs over an expanse of common red sphagnum (Sphagnum capillaceum). The average channel width is 0.1 m to 0.2 m, and the channels probably have depths similar to Inlets # 1 to # 6, when flowing. None of the seasonal inlets of Pelly Lake # 1 had any fisheries potential during the survey period.

Outlet - Unnamed Creek

The outlet creek drains Pelly Lake # 1 at the northeast end of the lake over a beaver dam found at the lake's edge (Plate # 8). Beaver dam # 1 is 0.3 m high and 25 m long and has water flowing over it in two places. The primary channel over the dam (Plate # 9) may not have been passable to the upstream movement of fish at the time of survey, but the secondary channel over the dam did appear to be passable to fish. Both channels after beaver dam # 1 flow through a sedge grass swamp for 5.0 m before entering a pond approximately 15 m in width by 15 m in length. The substrate of the two channels and the pond consists of thick silts and organics. Smartweed (Polygonum sp.) is growing abundantly in this pond. Beaver dam # 2 is located at the end of the pond, approximately 25 m downstream of Pelly Lake # 1. Beaver dam # 2 is 0.02 m high and 15 m long, with the outlet creek flowing over approximately 4.5 m of the length of the dam (and thus passable to fish). The outlet creek then flows through a sedge grass swamp. The channel has an average wetted width of 1.5 m, an average depth of 0.75 m, and a thick substrate of silts and organics. Approximately 125 m downstream of Pelly Lake # 1, the outlet creek enters a large pond / swamp (75 m by 60 m) thickly covered with smartweed and sedge grasses. At the downstream end of the pond, at approximately 200 m downstream of Pelly Lake # 1, the outlet creek flows over beaver dam # 3 (Plate # 14). Beaver dam # 3 is 0.6 m high and 20 m long, and appeared to be passable to the upstream movement of fish at the time of survey (Plate # 10). All three beaver dams are well established, very overgrown with sedge grasses, and appeared to be quite stable at the time of survey. Downstream of beaver dam # 3, the outlet channel is undefined as it flows through a treed sedge grass swamp which appears to continue for at least another 60 m to 70 m. The outlet creek of Pelly Lake # 1 had no fisheries potential during the survey period.

LAKE: Unnamed Lake (Pelly Lake # 1)

FISHERIES MANAGEMENT COMMENTS

Pelly Lake # 1 appears to be barren of all fish species. No fish were captured in one experimental gill net and four minnow traps set overnight. The six continuous inlets and four seasonal inlets entering Pelly Lake #1 offer no spawning habitat. This is also the case for the outlet creek over the 270 m length surveyed. At the time of survey, a wide variety of food items suitable for salmonids was observed, such as dragonfly nymphs and adults, caddisfly larvae and adults, water striders, water boatmen, Gammerus and copepods. Although the maximum depth of Pelly Lake # 1 is relatively shallow at 4.1 m, the temperature / oxygen profile recorded indicates that the dissolved oxygen levels at the time of survey were sufficient to support a fish population. The pH, which averaged at 8.6 from the surface to the bottom, is also suitable for the survival of salmonid species. The aesthetic value of Pelly Lake #1 is quite high by virtue of the surrounding terrain and forest, as well as the color (greenish-blue) and clarity of the lake water. In spite of the lack of spawning habitat, this lake may provide an enjoyable fishery if stocked occasionally with a small population of rainbow trout, such as triploid all-female rainbow trout. If the Pelly Lake # 1 is designated to be stocked, it is recommended that a winter oxygen / temperature profile be completed to ensure that the lake would not experience winter kill conditions.

HISTORY OF PREVIOUS SURVEYS

Lake Surveys:

None known.

Other Related Studies:

None known.

LAKE: Unnamed Lake (Pelly Lake # 1)

WATER CHEMISTRY SUMMARY **Limnology Station No. 1**

Field Conditions:

Date:	August 27, 1996	Air Temperature:	20.0 °C
Time:	1240 hrs	Wind Direction:	from the east
Wind Velocity:	2-4 km/h	Surface Conditions:	small waves
Cloud Cover:	9/10 o.c.	Water Colour:	clear with blue-green tinge
Secchi Disc:	4.15 m		

Method Used:

Dissolved Oxygen:	YSI Model 58 Oxygen / Temperature Meter
Water Temperature:	YSI Model 58 Oxygen / Temperature Meter
Air Temperature:	Hand-Held Alcohol Thermometer
pH (field):	Digital pH Pocket Tester
H2S (field):	Hach H2S Field Test Kit
Laboratory Used:	Pacific Environmental Science Center
Water Sampler:	Vertical Alpha Water Bottle (Vandorn)
Metal Sampler:	By Hand; Preserved With 2.0 mL Nitric Acid
Substrate Sampler:	Substrate Sample Not Taken

WATER SAMPLE CHEMISTRY: **SEAM Site No.: E223145**

	Sampling Depths	
	Surface (0.5 m)	Lower (3.5 m)
Alkalinity (lab)	150 mg/L	152 mg/L
Filterable Residue 105°C (lab)	170 mg/L	170 mg/L
H2S (field)	N/A	0.0 mg/L
Nitrogen - Total (lab)	0.13 mg/L	0.17 mg/L
Non-Filterable Residue (lab)	< 5 mg/L	< 5 mg/L
pH (field)	8.5	8.7
pH (lab)	8.21	8.14
Phosphorus - Total Dissolved (lab)	0.003 mg/L	0.003 mg/L
Specific Conductance (lab)	277 uS/cm	280 uS/cm

Bottom Depth: 4.15 m
Substrate Sample Depth: N/A

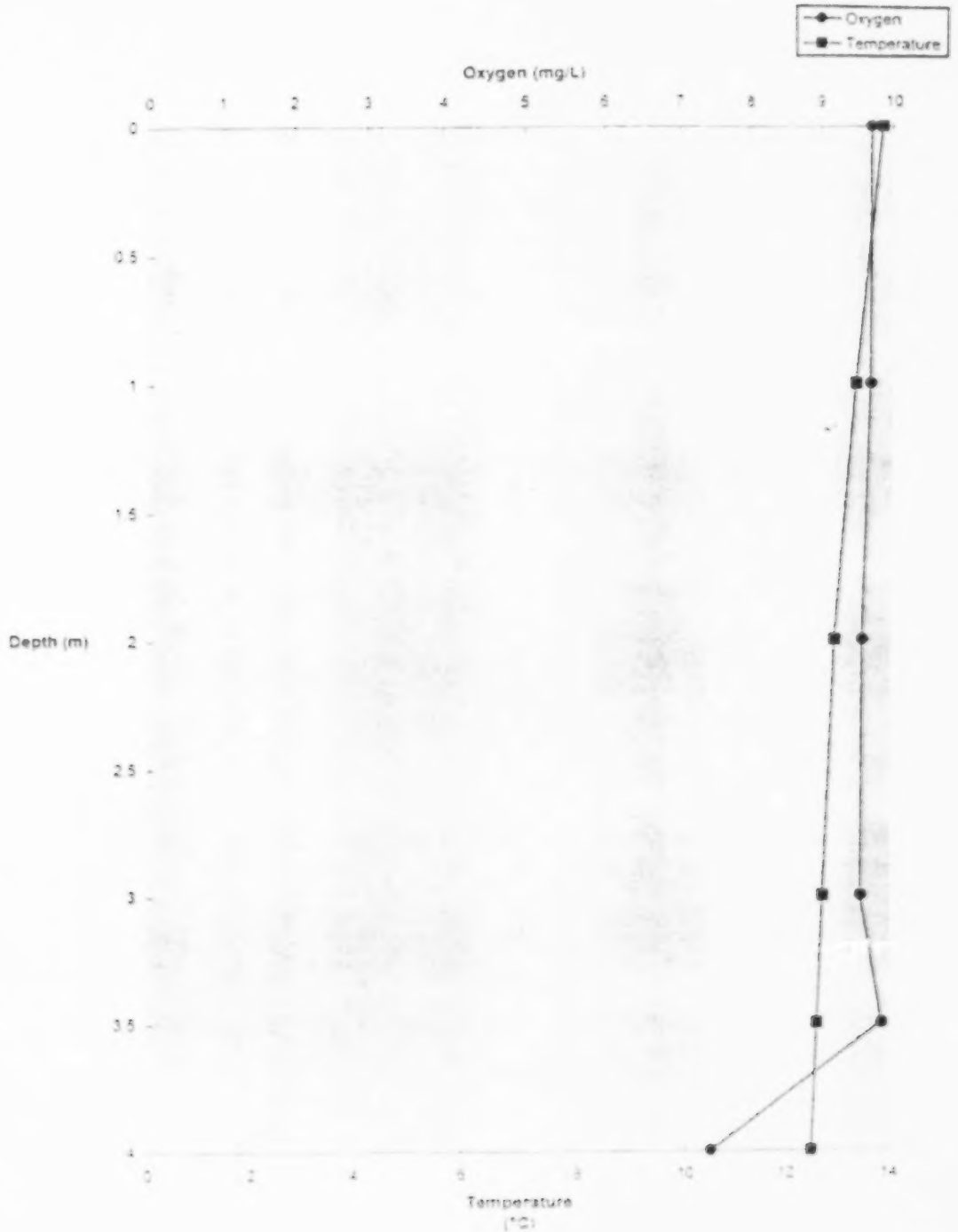
* additional analyzed parameters and results, including metals, are found in Appendix A

LAKE: Unnamed Lake (Pelly Lake # 1)

SUMMER OXYGEN / TEMPERATURE DATA

DEPTH (m)	02 (mgt)	TEMPERATURE (°C)
Surface	9.7	13.8
1.0	9.7	13.3
2.0	9.6	12.9
3.0	9.6	12.7
3.5	9.9	12.6
4.0	7.5	12.5
4.15	Bottom	

SUMMER OXYGEN / TEMPERATURE PROFILE



LAKE: Unnamed Lake (Pelly Lake # 1)

NETTING RECORD

Mesh Size Experimental Order: 25, 76, 51, 89, 38, 64 mm

NETTING SITE # I

Type:	Sinking Monofilament Gill Net		
Date Set:	August 26, 1996	Time:	1730 hrs
Date Lifted:	August 27, 1996	Time:	0809 hrs
Net Dimensions:	Length: 91.4 m	Depth:	2.4 m
Shallow End Mesh Size:	25 mm	Depth:	0.4 m
		Substrate:	silt / organics over cobble
Deep End Mesh Size:	64 mm	Depth:	4.15 m
		Substrate:	thick, white silt / clay

Comments: Gill net panels started 5.0 m offshore due to the flooded shoreline.

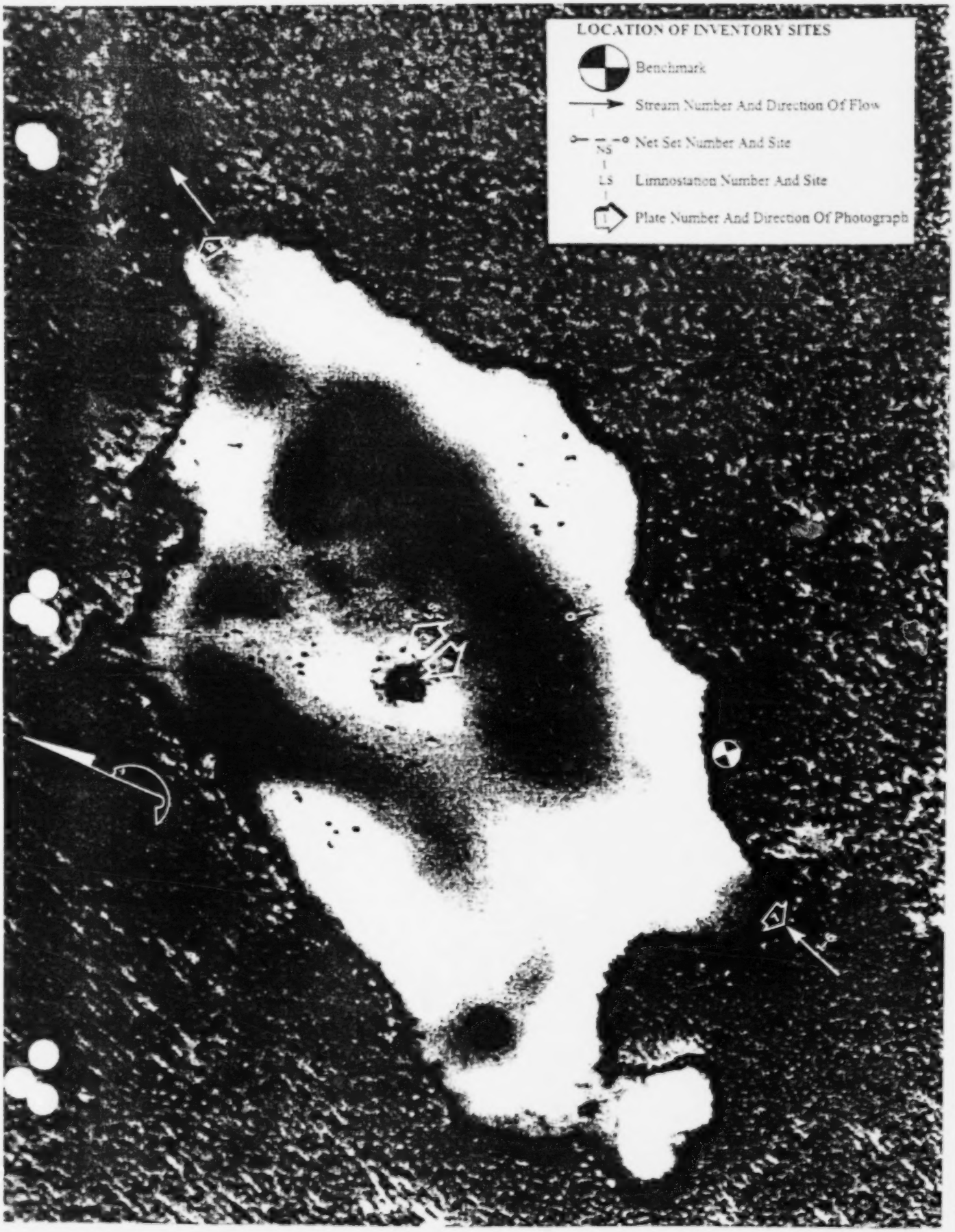
LAKE CATCH SUMMARY

Species	Netting Site	Angled	Other	Total	Number	Number	Size Range
	No. 1				Sampled	Preserved	(cm)
None	0	0	0	0	0	0	N/A

MINNOW TRAPS:

Bait: Sardines

Trap No.	Hours	Depth (m)	Substrate	Species	No. Caught	Size Range (cm)
1	14:23	0.9	silt / organics on cobble	Caddis Larvae	12	-
2	14:23	0.8	silt / organics on cobble	Caddis Larvae	3	-
3	14:22	1.2	thick, white silt	empty	0	-
4	14:23	1.0	thick, silt with organics	empty	0	-


LOCATION OF INVENTORY SITES
Benchmark
Stream Number And Direction Of Flow
NS
Net Set Number And Site
LS
Limnostation Number And Site
1
Plate Number And Direction Of Photograph

LAKE: Unnamed Lake (Pelly Lake # 1)

PHOTOGRAPH DIRECTORY

Plate	Roll : Number	Description
1	23: 16	Aerial view of Pelly Lake # 1 looking south-southwest.
2	23: 17	Aerial view of Pelly Lake # 1 looking north-northeast.
3	24: 6-8	Panoramic view of Pelly Lake # 1 looking north-northeast taken from the center of the lake.
4	24: 9-10	Panoramic view of Pelly Lake # 1 looking south-southwest taken from the center of the lake.
5	24: 15	View of the benchmark located 2.0 m above the present water level located on the southeast side of Pelly Lake # 1.
6	23: 19	View of the south bay shoreline where Inlets # 1 to # 6 and four intermittent inlets enter Pelly Lake # 1.
7	23: 18	View of the mouth of Inlet #6 where it enters the south bay of Pelly Lake # 1.
8	24: 14	Downstream view of the outlet draining over beaver dam # 1 at the lake's edge, located on the north-northeast end of Pelly Lake # 1. Dam height is 0.3 m.
9	23: 23	Upstream view of beaver dam # 1 on the outlet, located at the edge of Pelly Lake # 1. Dam height is 0.3 m.
10	24: 2	Upstream view of beaver dam #3 on the outlet of Pelly Lake # 1, located 200 m downstream of the lake. Dam height is 0.6 m.

LAKE: Unnamed Lake (Pelly Lake #1)

Plate # 1: Aerial view of Pelly Lake #1 looking south-southwest.

Plate #2: Aerial view of Pelly Lake looking north-northeast.

LAKE: Unnamed Lake (Pelly Lake #1)

Plate # 3: Panoramic view of Pelly Lake #1 looking north-northeast taken from the centre of the lake.

LAKE: Unnamed Lake (Pelly Lake #1)

Plate # 4: Panoramic view of Pelly Lake #1 looking south-southwest taken from the centre of the lake.

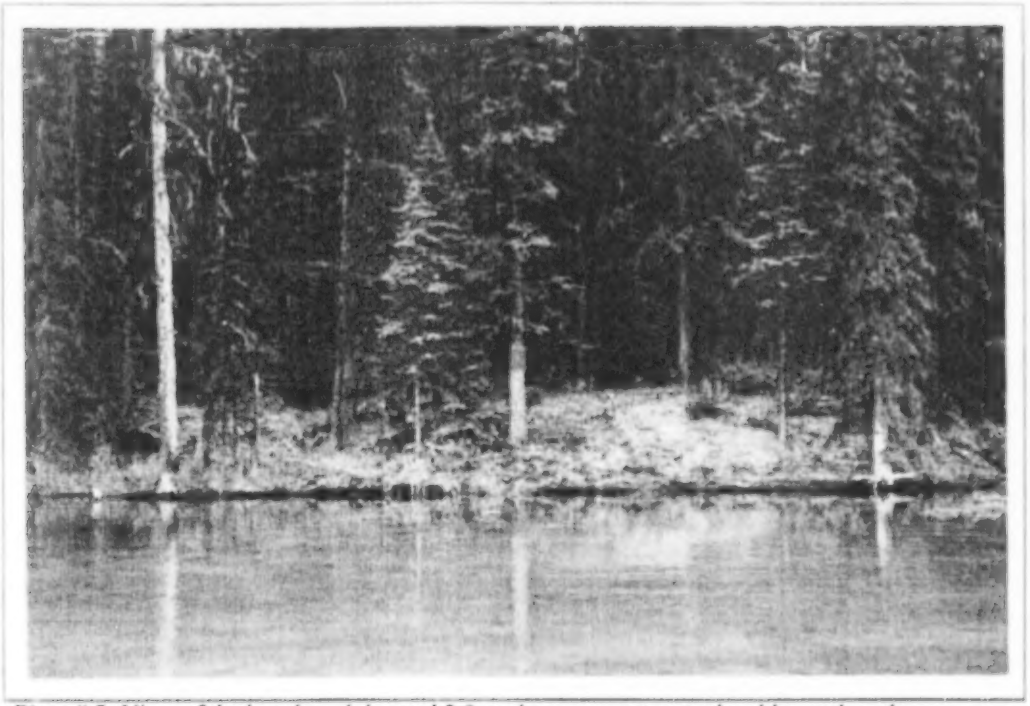


Plate # 5: View of the benchmark located 2.0 m above present water level located on the southeast side of Pelly Lake # 1.

Plate # 6: View of the south bay shoreline where Inlets # I - # 6 and four intermittent inlets enter Pelly lake # 1.

LAKE: Unnamed Lake (Pelly Lake # 1)

Plate # 7: View of the Mouth of Inlet 4 6 where it enters the south bay of Pelly Lake # 1.

Plate # 8: Downstream view of the outlet draining over beaver dam # 1 at the lake's edge, located on the north-northeast side of Pelly Lake # 1. Dam height is 0.3 m.

LAKE: Unnamed Lake (Pelly Lake # 1)

Plate # 9: Upstream view of beaver dam # I on the outlet, located at the edge of Pelly Lake # 1. Dam height is 0.3 m.

LAKE: Unnamed Lake (Pelly Lake # 1)

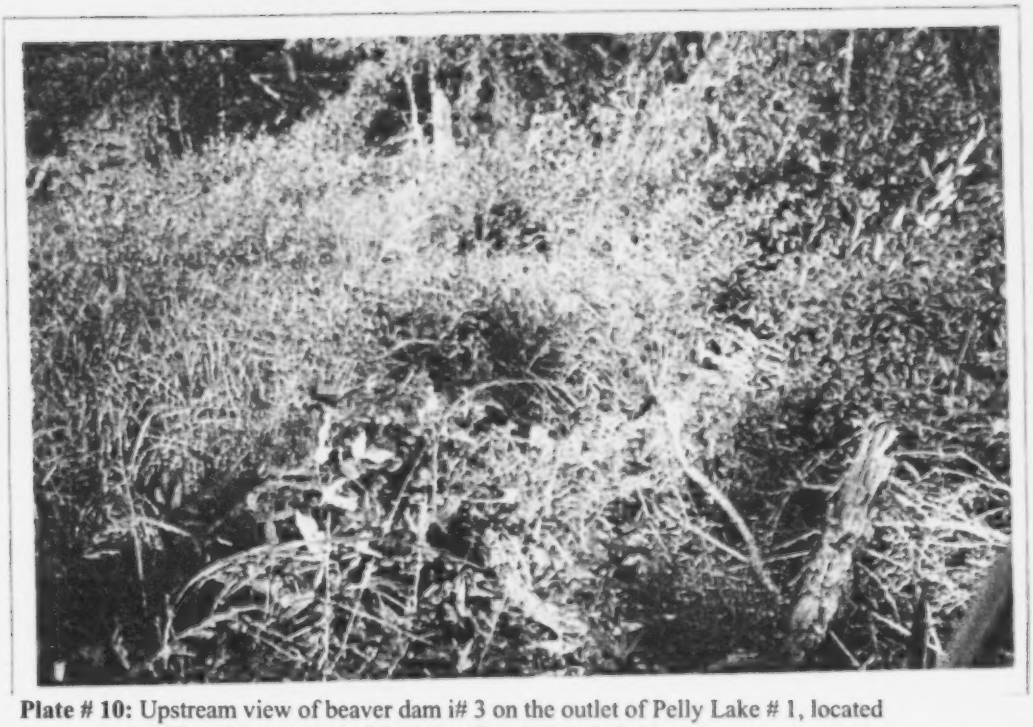


Plate # 10: Upstream view of beaver dam i# 3 on the outlet of Pelly Lake # 1, located 200 m downstream of the lake. Dam height is 0.6 m.

Appendix A

LABORATORY REPORT

Water Chemistry Analysis

RESULTS FOR UNNAMED LAKE-PELLY LK #1 SAMPLES

Parameter Analyzed		Units	964407-001	964407-002
ALKALINITY		mg/l	150	152
CONDUCTIVITY		uS/cm	277	280
METALS/TOTAL (WATER-ICP)	AG	mg/l	<.01	-
	AL	mg/l	<.06	-
	AS	mg/l	<.06	-
	B	mg/l	<.01	-
	BA	mg/l	.026	-
	BE	mg/l	<.001	-
	CA	mg/l	45.4	-
	CD	mg/l	<.006	-
	CO	mg/l	<.006	-
	CR	mg/l	.008	-
	CU	mg/l	<.006	-
	FE	mg/l	.006	-
	K	mg/l	.5	-
	MG	mg/l	8.8	-
	MN	mg/l	.002	-
	MO	mg/l	<.01	-
	NA	mg/l	1.2	-
	NI	mg/l	<.02	-
	P	mg/l	<.1	-
	PB	mg/l	<.06	-
	SB	mg/l	<.06	-
	SE	mg/l	<.06	-
	SI	mg/l	2.77	-
	SN	mg/l	<.06	-
	SR	mg/l	.173	-
	TI	mg/l	<.002	-
	V	mg/l	<.01	-
	ZN	mg/l	.003	-
NITROGEN/AMMONIA		mg/l	.012	.009
/NITRITE		mg/l	<.002	<.002
/NITRITE+NITRATE		mg/l	.005	.006
/TOTAL		mg/l	.13	.17
PH		Rel.U.	8.21	8.14
PHOSPHORUS/O-PO4		mg/l	<.001	<.001
/TOTAL		mg/l	.008	.009
/TOTAL DISSOLVED		mg/l	.003	.003
RESIDUE/FILTERABLE		mg/l	170	170
/NON-FILTERABLE		mg/l	<5	<5
BC CLIENT STUDY CODE			20	20
SAMPLING AGENCY			91	91
SITE IDENTIFIER/NUMBER			E223145	E223145
COLLECTION START DATE		y/m/d	96/08/27	96/08/27
UPPER DEPTH		metres	0.5	3.5
TEMPERATURE ON ARRIVAL		deg.C	4	4

Appendix B

BATHYMETRIC MAP

Reduced to
34%
of Original Size

STATISTICS AT TIME OF SURVEY

Elevation	1008	m. ?
Surface Area	79699	sq.m.
Area above ten. contour	79699	sq.m.
Volume	91487	cu.m.
Mean Depth	1.2	m.
Maximum Depth	3.8	m.
Perimeter Main Shore	1312	m.
Perimeter, Islands	0	m.
Bench Mark	2.0	m.

Unnamed Lake
(White Lake)